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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,113	05/09/2001	Shinichi Kanna	Q64410	2319

7590

08/25/2003

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EXAMINER

ASHTON, ROSEMARY E

ART UNIT

PAPER NUMBER

1752

DATE MAILED: 08/25/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/851,113

Applicant(s)

KANNA ET AL.

Examiner

Rosemary E. Ashton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-8 and 10-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8 and 10-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

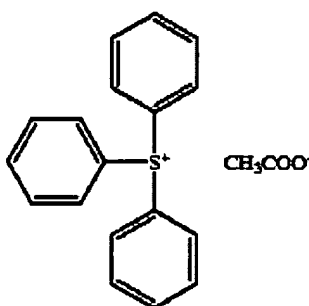
The rejection made in the prior office action is withdrawn because applicant amended the claims to read on the objected subject matter, however, upon updating the search new art was found which necessitates a new ground of rejection.

***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1,2,4-8,10-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishiyama et al. U.S. patent application publication US 2002/0012866 A1 for application no. 09/838,257 filed April 20, 2001.

As shown in Example 22 in Table 1 Nishiyama teaches a positive photoresist composition comprising a polymer A'-1 which is poly(hydroxystyrene)/t-butyl vinyl ether) having an acid labile t-butyl group, a photoacid generator of triphenylsulfonium di(trifluoromethyl)phenylsulfonate, an additive of triphenylsulfonium methylcarboxylate shown below and PGMEA as a solvent. Triphenylsulfonium methylcarboxylate is compound PAG-B1 in claims 7 and 8. The composition may also have an organic basic compound as in claim 6.

(E-8)



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Other monomers of polymer A' are shown in pages 6-8 and meet the limitation of formula II in claim 4 where W is an aryl group or a cycloalkyl group. These groups also meet the limitation of R4 in claim 12.

The amount of PAG is 0.01 to 20 wt. % as in claim 11 and the amount of hydroxystyrene groups having the hydroxyl group substituted with formula II is 5 to 50 mol % as in claim 13 (section 44). The molecular weight of the resin is 5,000 to 70,000 as in claim 14 (section 66).

The composition may have a fluorine or silicon containing surfactant (section 149-150) as in claim 15.

While Nishiyama does not exemplify Example 22 having an organic basic compound or a fluorine or silicon containing surfactant, one of ordinary skill in the art clearly envisions using these reagents in the composition because Nishiyama teaches they are in the composition.

#### **Conclusion**

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Masuda et al U.S. patent no. 5,663,035 teaches a radiation sensitive composition comprising the compound  $[IR^1R^2]X^-$  wherein X is  $RCOO^-$ ,  $R=C_1$  to  $C_{10}$  alkyl group however the composition has a resin that is soluble in aqueous alkaline solution and does not have acid cleavable groups.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosemary E. Ashton whose telephone number is 703-308-2057. The examiner works a flexible work schedule and can normally be reached M-F between 10:00 am – 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached at 703-308-2303.

The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communication.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Rosemary E. Ashton  
Primary Examiner  
Art Unit 1752

rea  
August 19, 2003

ROSEMARY ASHTON  
PRIMARY EXAMINER